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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/913,934	12/18/2001	Kazuro Okuzawa	MAT-8173US	5845

7590 01/30/2004
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EXAMINER

DABNEY, PHYLESHA LARVINIA

ART UNIT	PAPER NUMBER
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2643

DATE MAILED: 01/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/913,934

Applicant(s)

OKUZAWA ET AL

Examiner

Phylesha L Dabney

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) 2 and 5 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1,3 and 4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

This action is in response to the amendment filed on 12 June 2003 in which claims 1,3-4 are pending.

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, “the heat-curing and UV-curing adhesive layer (applicant’s drawing figure 1, 6a only) being exposed outside of the magnet and being cured by an UV light irradiation” must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1 and 3-4 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed

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invention. The specification fails to teach the heat-curing and UV-curing adhesive layer (6a only) of figure 1 as being exposed outside of the magnet and being cured by UV light irradiation.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sone (U.S. Patent No. 5,432,758, in view of Loctite (World Design Handbook, second edition, copyright 1998, sections 2.2, 11.1, 11.2, 11.6 and article: Light Curing-Bonds that Last, website last update Sept 23, 2001).

Regarding claim 1, Sone teaches an electro-acoustic transducer comprising a case molded (2, one-piece) integrally with a frame (40, 42, 44) at the bottom; a magnet (26, col. 5 lines 37-39) bonded to the frame; and a diaphragm (30). Sone does not specifically teach the bonding material adhered to the conductive frame (40, 42, 44) used in attaching electrical components, i.e. magnet, heat sinks, etc. Loctite teaches using heat and UV curing adhesive to bond electrical components to conductive flames, such as printed circuit boards for quickly setting the components in position on the board (UV curing) prior to applying a secondary curing system, such as heat, for curing areas of the adhesive where the UV missed (Loctite Handbook, sections 2.2.2, 2.2.6; article: "Light Curing-Bonds that Last", page 2). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a heat and

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UV curing adhesive for quick setting and insuring completely cured surface. Furthermore, the combination of references does not teach a portion of the adhesive layer as being exposed outside of the magnet. However, the examiner takes official notice that it is known in the art of attaching electrical components, such as magnets, heat sinks, etc, to frames to allow a portion of the adhesive material to be exposed outside of the component, such as magnet, for increasing the adhesion area thus achieving the desired bonding strength. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to allow the adhesive material of the combination of references to be partially exposed to increase the bond strength.

4. Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sone (U.S. Patent No. 5,432,758, in view of Loctite (World Design Handbook, second edition, copyright 1998, sections 2.2, 11.1, 11.2, 11.6 and article: Light Curing-Bonds that Last, website last update Sept 23, 2001), and further in view of well-known prior art.

Regarding claims 3-4, Sone teaches an electro-acoustic transducer comprising a case molded (2, one-piece) integrally with a frame (40, 42, 44) at the bottom; a magnet (26, col. 5 lines 37-39) bonded to the frame; and a diaphragm (30). Sone does not specifically teach the bonding material adhered to the conductive frame (40, 42, 44) used in attaching electrical components, i.e. magnet, heat sinks, etc. Loctite teaches using self-curing adhesives, such as anaerobic adhesives (Table: Loctite Product List, section 2.2.1) or heat curing adhesives (Table: Loctite Product list, section 2.2.6) in electrical applications for quickly setting and securing electrical components. Therefore, it would have been obvious to one of ordinary skill in the art

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at the time the invention was made to use a self-curing adhesive or a heat curing adhesive in the invention of Sone, as taught by Lucite, for quickly setting and securing electrical components. The combination of references fail to teach a cured UV-curing resin layer covering the case and the magnet; however, the examiner takes official notice that it is well known in the art to apply a UV-cured resin layer as a covering for electrical components, such as magnets, to act as a dam and fill material thereby, protecting the electronic component from mechanical damage and corrosion. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to cover or encapsulate the electrical component(s) of the combined references to protect the component(s) from adverse condition.

Response to Arguments

On pages 4-5 of the amendment filed 11/5/03, see the new rejection above.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

Or faxed to:

(703) 872-9314, for formal communications intended for entry and for informal or draft communications, please label "Proposed" or "Draft" when submitting an informal amendment.

(703) 306-0377, for customer service questions.

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

PLD

January 18, 2004


CURTIS K. RYZ
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